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FILE 'REGISTRY' ENTERED AT 14:36:46 ON 26 MAR 2008
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STRUCTURE FILE UPDATES:   25 MAR 2008  HIGHEST RN 1010115-69-1
DICTIONARY FILE UPDATES:  25 MAR 2008  HIGHEST RN 1010115-69-1

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http://www.cas.org/support/stngen/stndoc/properties.html

=> d sta que l74
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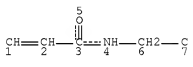


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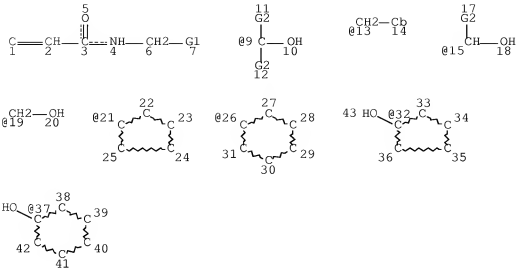

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ECOUNT IS E6 C AT 14

GRAPH ATTRIBUTES:
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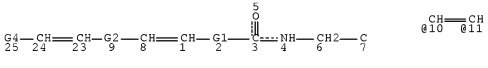

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STEREO ATTRIBUTES: NONE
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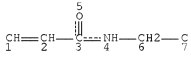

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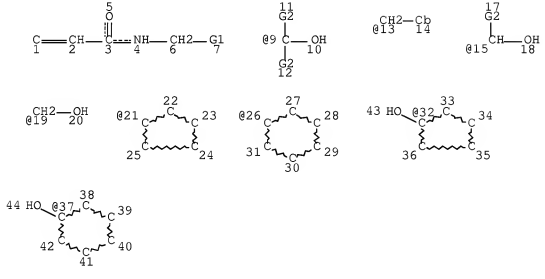

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DEFAULT MLEVEL IS ATOM
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ECOUNT IS E6 C AT 14

GRAPH ATTRIBUTES:
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L63 1639 SEA FILE=REGISTRY SUB=L60 CSS FUL L61
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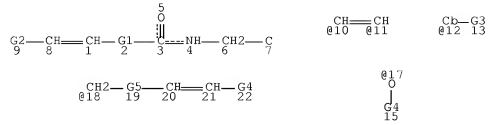

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STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 1639 ITERATIONS 94 ANSWERS
SEARCH TIME: 00.00.01

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:37:37 ON 26 MAR 2008
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FILE COVERS 1907 - 26 Mar 2008 VOL 148 ISS 13
FILE LAST UPDATED: 25 Mar 2008 (20080325/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitind hitstr retable tot l111

L111 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:983777 HCAPLUS Full-text
DN 143:266752
TI Processes for preparing (2E,4E,8Z)-2,4,8-undecatrienoic acid and ester and carboxamide derivatives and organoleptic uses thereof
IN Dewis, Mark L.; Huber, Michelle E.
PA International Flavors & Fragrances Inc., USA
SO U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 618,367.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005197387	A1	20050908	US 2004-861751	20040604 <--
	US 7098350	B2	20060829		
	US 2005010062	A1	20050113	US 2003-618367	20030710 <--
	US 7141686	B2	20061128		
	IN 2004DE01233	A	20060721	IN 2004-DE1233	20040701 <--
	EP 1496042	A2	20050112	EP 2004-254095	20040708 <--
	EP 1496042	A3	20050309		
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	CN 1706788	A	20051214	CN 2004-10063646	20040709 <--
PRAI	US 2003-618367	A2	20030710	<--	
	US 2004-861751	A	20040604		

OS CASREACT 143:266752; MARPAT 143:266752
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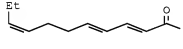
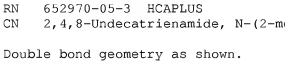


I

AB Described is a genus of undecatrienoic acid derivs. I [Z = NRR1, OR2; R = H, Me, Et; R1 = Me, Et, Pr, cyclopropyl, iso-Pr, Bu, s-Bu, iso-Bu, 2-methylbutyl, cyclobutyl, piperonyl, cyclopenyl, allyl; R2 = H, (un)branched C1-6-alkyl, C3-6-alkenyl] useful in imparting, augmenting and/or enhancing flavors, aromas and somatosensory effects in or to consumable materials such as foods, beverages, skin care products, oral care products, medicinal products and the like. Also described is a synthesis process for producing such derivs. The process comprises: (a) oxidation of (2E,4E,8Z)-2,4,8-undecatrienal with Ag2O in aqueous alkali hydroxide, followed by acidifying the product; (b) reacting the acid with an alkyl haloformate in the presence of a tertiary amine; (c) reacting the intermediate mixed anhydride with either an amine, RR1NH, to form the amide, or reacting with an alc., R2OH, to form the ester. Thus, (2E,4E,8Z)-N-(isobutyl)-2,4,8-undecatrienamide [I; Z = NHCH2CHMe2], was prepared from (2E,4E,8Z)-2,4,8-undecatrienal [Z = H] via oxidation with Ag2O in aqueous NaOH, acidification with aqueous HCl, reaction with ClCO3Et in the presence of Et3N, then amination with Me2CHCH2NH2.
IC ICM A61K0031-202

ICS A61K0031-16; A61K0031-20
INCL 514464000; X51-456.0; X51-462.7; X55-4 3.5; X55-422.3
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 17, 62, 63
IT Beverages
Candy
Chewing gum
Drugs
(flavor enhancers for; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
IT Condiments
(flavor-enhancing; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
IT Dentistry
(oral care products, flavor enhancers for; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
IT Food additives
Human
Odor and Odorous substances
Taste
(preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
IT Cooperative phenomena
(synergism, with aroma, taste or somatosensory agents; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
IT 652970-05-3P, (2E,4E,8Z)-N-(Isobutyl)-2,4,8-undecatrienamide
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and organoleptic uses of; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
IT 652970-05-3P, (2E,4E,8Z)-N-(Isobutyl)-2,4,8-undecatrienamide
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and organoleptic uses of; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)
RN 652970-05-3 HCAPLUS
CN 2,4,8-Undecatrienamide, N-(2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Albacarys	2002			US 6338855 B1	HCAPLUS
Anon	1970			JP 04803546	
Anon	1976			GB 1438205	HCAPLUS
Anon	1981			JP 56087505	HCAPLUS
Anon	1993			WO 9323005	HCAPLUS
Anon	1998			WO 9807404	HCAPLUS
Anon	1999			WO 9907235	HCAPLUS

Anon	2000			WO 0/45815	HCAPLUS
Anon	2001			EP 1121927 A2	HCAPLUS
Anon	2001			EP 1121927 A2	HCAPLUS
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Anon	2001	55	53	Food Technology	
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Gamboa-Leon, R	2000	28	1019	Biochemical Systemat	HCAPLUS
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Hirokazu, T	1981	22	3421	Tetrahedron Letters	
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Kumamoto	2002			US 20020142015 A1	
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Light	2003			US 20030095936 A1	HCAPLUS
Mane	1998			US 5725865 A	HCAPLUS
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Mohammadi	2002			US 20020012640 A1	
Nakatani, N	1992	56	759	Bioscience Biotechno	HCAPLUS
Nakatsu	1996			US 5545424 A	HCAPLUS
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Reed	2001			US 6299900 B1	HCAPLUS

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Sako	1999			US 5955066 A	HCAPLUS
Shiroyama	2001			US 6328982 B1	HCAPLUS
Sonnenberg	2002			US 20020173436 A1	HCAPLUS
Tashjian	2003			US 6579513 B1	HCAPLUS
Valentine	2003			US 6579535 B1	HCAPLUS
Vermeer	1997			US 5641480 A	HCAPLUS
Watkins	2002			US 6451844 B1	HCAPLUS
Watson	1979			US 4150052 A	HCAPLUS
Watson	1980			US 4226988 A	HCAPLUS
Winkler	1984			US 4470982 A	HCAPLUS
Wolf	2002			US 6455080 B1	HCAPLUS
Wolf	2003			US 20030082271 A1	
Yeoh	2001			US 6200554 B1	HCAPLUS
Young	2001			US 6248315 B1	HCAPLUS

L111 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:34644 HCAPLUS Full-text
DN 142:134213
TI Ester and carboxamide derivatives of E2,E4,Z8-undecatrienoic acid, processes for preparing same and their organoleptic uses
IN Dewis, Mark L.; Huber, Michelle E.
PA International Flavors & Fragrances Inc., USA
SO U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

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PI	US 2005010062	A1	20050113	US 2003-618367	20030710 <--
	US 7141686	B2	20061128		
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	US 7098350	B2	20060829		
	IN 2004DE01233	A	20060721	IN 2004-DE1233	20040701 <--
	EP 1496042	A2	20050112	EP 2004-254095	20040708 <--
	EP 1496042	A3	20050309		
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	CN 1706788	A	20051214	CN 2004-10063646	20040709 <--
PRAI	US 2003-618367	A2	20030710	<--	
	US 2004-861751	A	20040604		

OS MARPAT 142:134213
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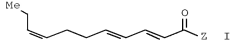


I

AB The present invention discloses preparation of E2,E4,Z8-undecatrienoic acid derivs., such as I [Z = OR1, NR2R3; R1 = H, C1-C6 straight chain or branched-chain alkyl, C3-C6 straight chain or branched-chain alkenyl; R2 = H, Me, Et; R3 = Me, Et, Pr, cyclopropyl, iso-Pr, Bu, sec-Bu, iso-Bu, 2-methylbutyl, cyclobutyl, 3,4-methylenedioxyphenyl, cyclopentyl or allyl], and their use in imparting, augmenting and/or enhancing flavors, aromas and somatosensory effects in or to consumable materials such as foods, beverages, skin care products, oral care products, medicinal products and the like. Thus, I [Z = NHCH2CHMe2 (II)] was prepared by the reaction of isobutylamine and E2,E4,Z8-undecatrienoic acid (prepared via oxidation of E2,E4,Z8-undecatrienal with silver(I) oxide). II was used for the enhancement of flavor of alc. beverage and hard candy.

IC ICM C07C0233-02
ICS C07D0317-44

INCL 554035000; X55-422.4; X54-943.6

CC 23-18 (Aliphatic Compounds)
Section cross-reference(s): 17, 62, 63

ST undecatrienoic acid ester carboxamide deriv prepn food cosmetic additive; beverage candy chewing gum toothpaste additive undecatrienoic acid deriv

IT Carboxylic acids, preparation
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(derivs.; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT Carboxylic acids, preparation
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(esters; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT Candy
(hard; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT Drug delivery systems
(nasal; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT Hygiene
(oral; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT Alcoholic beverages
Chewing gum
Colognes
Cosmetics
Dentifrices
Flavoring materials
Hair preparations
Skin preparations (pharmaceutical)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT Amides, preparation

RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 652970-05-3P
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 824416-99-1P, E2,E4,Z8-Undecatrienoic acid
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 795309-53-4P 823815-34-5P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 67-56-1, Methanol, reactions 78-81-9, Iso-butylamine 124-40-3, Dimethylamine, reactions 541-41-3, Ethyl chloroformate 350696-20-7, E2,E4,Z8-Undecatrienal
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 823815-35-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

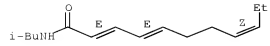
IT 121-44-8, Triethylamine, reactions 1310-73-2, Sodium hydroxide, reactions 7647-01-0, Hydrochloric acid, reactions 20667-12-3, Silver(I) oxide
RL: RGT (Reagent); RACT (Reactant or reagent)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 652970-05-3P
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

RN 652970-05-3 HCAPLUS

CN 2,4,8-Undecatrienamide, N-(2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



RETABLE

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Galopin	2004	867	139	ACS Symposium Series	HCAPLUS
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Gamboa-Leon	2000	28	1019	Biochemical Systemat	HCAPLUS
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Jacobson	1953	75	2584	Pellitorine Isomers.	HCAPLUS
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Johnson	2003			US 20030072842 A1	HCAPLUS
Kilcher	2003			US 6576225 B1	HCAPLUS
Kumamoto	2002			US 20020142015 A1	
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Tanaka	1981	22	3421	Tetrahedron Letters	HCAPLUS
Tashjian	2003			US 6579513 B1	HCAPLUS
Valentine	2003			US 6579535 B1	HCAPLUS
Vermeer	1997			US 5641480 A	HCAPLUS
Watkins	2002			US 6451844 B1	HCAPLUS
Watson	1979			US 4150052 A	HCAPLUS
Watson	1980			US 4226988 A	HCAPLUS
Winkler	1984			US 4470982 A	HCAPLUS
Wolf	2002			US 6455080 B1	HCAPLUS
Wolf	2003			US 20030082271 A1	
Wolfson	2002			US 20020122778 A1	HCAPLUS
Yeoh	2001			US 6200554 B1	HCAPLUS
Young	2001			US 6248315 B1	HCAPLUS
Zimmermann	2001			US PP12213 P2	

L111 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:873840 HCAPLUS Full-text
DN 141:325774
TI Sanshool derivatives from Zanthoxylum piperitum as memory enhancers and health foods
IN Yano, Shingo; Nakamura, Tomonori; Ikegami, Fumio
PA Tokiwa Shikubutsu Kagaku Kenkyusho Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent

LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004292383	A	20041021	JP 2003-88262	20030327 <--
PRAI JP 2003-88262		20030327 <--		

OS MARPAT 141:325774

AB Zanthol derivs. from Zanthoxylum piperitum (I; Me(CH2)nCONHCH2R1 wherein R1 = Me, CH2OR2, CR3(CH3)2, etc., with R2 =, H, Me, sugar, R3 = H, OH) are claimed as memory enhancers and health foods. I were extracted from the above plant, and their effects on learning were studied in mouse water maze test.

IC ICM A61K0031-16
ICS A23L0001-30; A61K0031-164; A61K0035-78; A61P0025-28

CC 1-11 (Pharmacology)
Section cross-reference(s): 17

ST sanshool deriv Zanthoxylum memory enhancer health food

IT Cognition enhancers
Health food
Learning
Zanthoxylum piperitum
(sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)

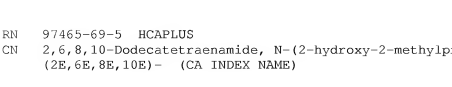
IT 10076-00-3P, β-Sanshool 78886-65-4P, γ-Sanshool 78886-66-5P, Hydroxy-γ-Sanshool 97465-69-5P, Hydroxy-β-Sanshool
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)

IT 504-97-2, α-Sanshool 83883-10-7, Hydroxy-α-Sanshool
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)

IT 78886-66-5P, Hydroxy-γ-Sanshool 97465-69-5P, Hydroxy-β-Sanshool
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)

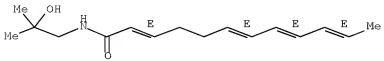
RN 78886-66-5 HCAPLUS
CN 2,4,8,10,12-Tetradecapentaenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,4E,8Z,10E,12E)- (CA INDEX NAME)

Double bond geometry as shown.



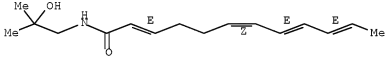
RN 97465-69-5 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6E,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



IT 83883-10-7, Hydroxy-α-Sanshool
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)
RN 83883-10-7 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:856961 HCAPLUS Full-text
DN 141:331119
TI Alkyldienamides exhibiting taste and sensory effect in flavor compositions
IN Dewis, Mark L.; Huber, Michelle E.; Cossette, Michael V.; Agyemang, David O.
PA International Flavors & Fragrances Inc, USA
SO U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004202760	A1	20041014	US 2003-411672	20030411 <--
	US 2004202619	A1	20041014	US 2004-783652	20040220 <--
	IN 2004DE00651	A	20060616	IN 2004-DE651	20040331 <--
	BR 2004001566	A	20050830	BR 2004-1566	20040406 <--
	EP 1473287	A2	20041103	EP 2004-252136	20040408 <--
	EP 1473287	A3	20041229		
	EP 1473287	B1	20060621		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	ES 2267004	T3	20070301	ES 2004-252136	20040408 <--
	CN 1593230	A	20050316	CN 2004-10032498	20040409 <--
PRAI	US 2003-411672	A2	20030411	<--	
	US 2004-783652	A	20040220		

OS MARPAT 141:331119

AB Alkyldienamide compds. suitable for use as flavoring agents are disclosed. The compds. are used as flavors since they possess umami characteristics or other desirable organoleptic properties.

IC ICM A23L0001-22

INCL 426534000

CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 23, 24, 62

ST alkyldienamide flavor enhancer synthesis food oral hygiene additive; nonadienamide dodecadienamide deriv flavor enhancer food toothpaste

IT Beverages
Chewing gum
Dentifrices
Flavoring materials
Food additives
(alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Amides, biological studies
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(alkyldienes; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Dentifrices
(aromatic oil-flavored; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Chewing gum
(bubble gum flavored; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Condiments
(flavor-enhancing; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Candy
(hard, cinnamon-flavored; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Beverages
(lemon-lime flavor; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Hygiene
(oral, products for; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT Alcoholic beverages
(peach flavor; alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT 608514-55-2P 608514-56-3P 767329-59-9P 767329-60-2P
767329-61-3P 767329-62-4P 767329-65-7P 767329-66-8P
767329-68-0P 767329-69-1P 767329-70-4P 767329-71-5P 767329-72-6P
773060-63-2P 773060-64-3DP, derivs. 773060-65-4DP, derivs.
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyldienamides exhibiting taste and sensory effect in flavor compns.)

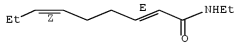
IT 74-89-5, Methylamine, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 78-81-9, Isobutylamine 96-15-1, 2-Methylbutylamine 141-43-5, 2-Ethanolamine, reactions 541-41-3, Ethyl chloroformate 765-30-0, Cyclopropylamine 2620-50-0, Piperonylamine 23605-13-2 94088-26-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkyldienamides exhibiting taste and sensory effect in flavor compns.)

IT 608514-56-3P 767329-59-9P 767329-61-3P
773060-63-2P

RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyldienamides exhibiting taste and sensory effect in flavor compns.)

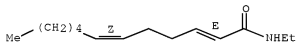
RN 608514-56-3 HCAPLUS
CN 2,6-Nonadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



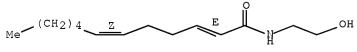
RN 767329-59-9 HCAPLUS
CN 2,6-Dodecadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



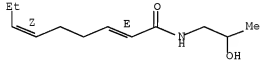
RN 767329-61-3 HCAPLUS
CN 2,6-Dodecadienamide, N-(2-hydroxyethyl)-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



RN 773060-63-2 HCAPLUS
CN 2,6-Nonadienamide, N-(2-hydroxypropyl)-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:856915 HCAPLUS Full-text
DN 141:313274
TI Compositions comprising alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage
IN Dewis, Mark L.; Huber, Michelle E.; Cossette, Michael V.; Agyemang, David O.; Conklin, Garry; Pei, Tao
PA International Flavors & Fragrances Inc, USA

SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of Ser. No. US 2003-411672, filed on 11 Apr 2003
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004202619	A1	20041014	US 2004-783652	20040220 <--
	US 2004202760	A1	20041014	US 2003-411672	20030411 <--
	BR 2004001566	A	20050830	BR 2004-1566	20040406 <--
	EP 1473287	A2	20041103	EP 2004-252136	20040408 <--
	EP 1473287	A3	20041229		
	EP 1473287	B1	20060621		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	ES 2267004	T3	20070301	ES 2004-252136	20040408 <--
	CN 1593230	A	20050316	CN 2004-10032498	20040409 <--
PRAI	US 2003-411672	A2	20030411	<--	
	US 2004-783652	A	20040220		

OS MARPAT 141:313274
AB The present invention relates to novel compds. and a process for augmenting or imparting a taste or somatosensory effect to a foodstuff, chewing gum, medicinal product, toothpaste, alc. beverage, aqueous beverage or soup. The compds. are used as flavors since they possess umami characteristics or other desirable organoleptic properties. The disclosed compds. are defined by the formula R5R4C:C(R3)CON(Y)(X) (X = H, Me, Et, Pr, iPr; Y = Me, Et, cyclopropyl, iPr, Pr, Bu, sec-Bu, iso-Bu, 2-methylbutyl, allyl, cyclobutyl, cyclopentyl, CH2CH(OH)CH3, CH(CH3)CH2OH, CH2C(CH3)OH, CH2CH2OH, CH2CO2CH3, geranyl, neryl, benzo[1,3]dioxol-5-yl; or X and Y together form the structures pyrrolidin-1-yl, 2-carboxypyrrolidin-1-yl, piperidin-1-yl; R3,R4 = Me, H; R5 = Me, Ph, benzyl, Et, Pr, Bu, iPr, phenylethyl, etc.).
IC ICM A61K0009-68
ICS A61K0007-16; A23L0001-221
INCL 424048000; X42-4 4.9; X42-665.0
CC 17-6 (Food and Feed Chemistry)
ST alkyldienamide taste sensory effect enhancing flavor foodstuff beverage
IT Alcoholic beverages
Chewing gum
Dentifrices
Flavor
Flavoring materials
Food
Soups
(alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)
IT Beverages
(aqueous; alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)
IT Candy
(hard; alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)
IT Saltiness
(salt taste enhancer; alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)
IT Taste
(somatosensory effect; alkyldienamides exhibiting taste and

sensory effect and use for enhancing flavor in foodstuff and beverage)

IT 142-47-2, Monosodium glutamate 7647-14-5, Salt, biological studies 80702-47-2, Ribotide
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)

IT 608514-55-2P 608514-56-3P 767329-58-8P 767329-59-9P 767329-60-2P 767329-61-3P 767329-62-4P 767329-63-5P 767329-64-6P 767329-65-7P 767329-66-8P 767329-67-9P
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)

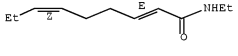
IT 56-40-6, Glycine, reactions 74-89-5, Methylamine, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 78-81-9, Isobutylamine 96-15-1, 2-Methylbutylamine 107-11-9, Allylamine 121-44-8, Triethylamine, reactions 124-40-3, Dimethylamine, reactions 141-43-5, 2-Ethanolamine, reactions 541-41-3, Ethyl chloroformate 541-47-9 765-30-0, Cyclopropylamine 2620-50-0, Piperonylamine 4698-08-2 23605-13-2 55320-96-2 75091-79-1 94088-26-3 767329-75-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)

IT 51552-27-3P 767329-68-0P 767329-69-1P 767329-70-4P 767329-71-5P 767329-72-6P 767329-73-7P 767329-74-8P 767329-76-0P 767329-77-1P 767329-78-2P 767329-79-3P 767329-80-6P 767329-81-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)

IT 608514-56-3P 767329-59-9P 767329-61-3P
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(alkyldienamides exhibiting taste and sensory effect and use for enhancing flavor in foodstuff and beverage)

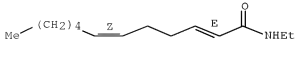
RN 608514-56-3 HCAPLUS
CN 2,6-Nonadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



RN 767329-59-9 HCAPLUS
CN 2,6-Dodecadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

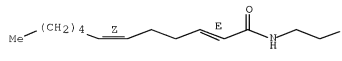
Double bond geometry as shown.



RN 767329-61-3 HCAPLUS

CN 2,6-Dodecadienamide, N-(2-hydroxyethyl)-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:428897 HCAPLUS Full-text
DN 141:6843
TI Preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity.
IN Gatfield, Ian Lucas; Ley, Jakob Peter; Krammer, Gerhard; Bertram, Heinz-Juergen; Loenneker, Ilse; Machinek, Arnold
PA Symrise G.m.b.H. & Co. K.-G., Germany
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004043906	A2	20040527	WO 2003-EP12686	20031113 <--
	WO 2004043906	A3	20041007		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10253331	A1	20040603	DE 2002-10253331	20021114 <--
	AU 2003283398	A1	20040603	AU 2003-283398	20031113 <--
	EP 1562893	A2	20050817	EP 2003-775352	20031113 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1711234	A	20051221	CN 2003-80103209	20031113 <--
	JP 2006506479	T	20060223	JP 2004-551009	20031113 <--
	BR 2003016207	A	20060411	BR 2003-16207	20031113 <--
	US 2004241312	A1	20041202	US 2004-483668	20040727 <--
PRAI	DE 2002-10253331	A	20021114 <--		
	WO 2003-EP12686	W	20031113		

AB Use of 2E,4E-decadienoic acid isobutylamide (trans-pellitorin) (I) in the form of an aromatic substance, in particular a saliva stimulating aromatic substance for food, oral hygiene or gustatory prepns. is claimed. Thus, a mixture of Et 2E,4Z-decadienoate, Chirazyme L-2, and isobutylamine was heated at 55° for 4 days to give 99.4% 2E,4Z-decadienoic acid isobutylamide, which was stirred 1 h with iodine in PhMe to give I in >95% purity. I food and oral hygiene compns. are given.
IC ICM C07C0231-00
ICS A61K0007-16
CC 23-18 (Aliphatic Compounds)
Section cross-reference(s): 17, 62

ST dodecadienoate amidation isomerization; pellitorin prepn saliva stimulating substance food oral hygiene

IT Chewing gum
Dentifrices
Flavoring materials
Food additives
Isomerization
Mouthwashes
Saliva
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)

IT 639086-18-3P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)

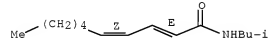
IT 18836-52-7P, trans-Pellitorin
RL: COS (Cosmetic use); FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)

IT 639086-18-3P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)

RN 639086-18-3 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.

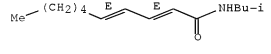


IT 18836-52-7P, trans-Pellitorin
RL: COS (Cosmetic use); FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)

RN 18836-52-7 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:101119 HCAPLUS Full-text

DN 140:145102

TI Flavorant aliphatic or aromatic unsatd. amide compounds for food use

IN Galopin, Christophe; Goeke, Andreas; Furrer, Stefan
PA Givaudan SA, Switz.
SO PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004011415	A1	20040205	WO 2003-CH500	20030723 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003245800	A1	20040216	AU 2003-245800	20030723 <--
	EP 1525184	A1	20050427	EP 2003-737827	20030723 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1668578	A	20050914	CN 2003-816951	20030723 <--
	JP 2005533897	T	20051110	JP 2004-523719	20030723 <--
	IN 2004CN03060	A	20060217	IN 2004-CN3060	20041231 <--
	US 2005233042	A1	20051020	US 2005-522113	20050125 <--
PRAI	US 2002-398449P	P	20020725	<--	
	WO 2003-CH500	W	20030723	<--	

OS MARPAT 140:145102

AB Use as a flavor ingredient of an aliphatic or aromatic unsatd. amide of formula (I, R''(CH)nCONHCH2C(R')(R''')(R'''')), where R' is H or OH, n is 1 or 2; R'' is RvCHCH(CH2)m when n is 2, m being 1,2 or 3; R''' and R'''' are H, C1-C4 alkyl, benzyl or form a 5- or 6-membered carbocyclic ring with the carbon to which they are attached; and Rv is alkyl or alkenyl is described. When n is 1, R'' may also be a Ph group.

IC ICM C07C0233-09
ICS C07C0233-20; A23L0001-226
CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 23
ST flavoring material aliph arom unsatd amide isobutyl undecatrienamide
IT Flavoring materials
Soups
(flavorant aliphatic or aromatic unsatd. amide compds. for food use)
IT Amides, biological studies
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(unsatd.; flavorant aliphatic or aromatic unsatd. amide compds. for food use)
IT 652970-05-3P 652970-06-4P
RL: FFP (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(flavorant aliphatic or aromatic unsatd. amide compds. for food use)
IT 621-82-9, Cinnamic acid, reactions 4634-89-3, (Z)-Hex-4-enal 62872-62-2 67629-62-3
RL: RCT (Reactant); RACT (Reactant or reagent)

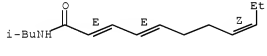
(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT 102-92-1P 6299-56-5P 652970-07-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT 652970-05-3P 652970-06-4P
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

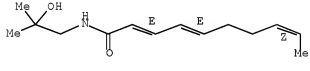
RN 652970-05-3 HCAPLUS
CN 2,4,8-Undecatrienamide, N-(2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



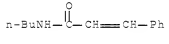
RN 652970-06-4 HCAPLUS
CN 2,4,8-Decatrienamide, N-(2-hydroxy-2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



IT 6299-56-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

RN 6299-56-5 HCAPLUS
CN 2-Propenamide, N-butyl-3-phenyl- (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Goeke, A	2002			US 2002081370 A1	
Kikuzaki, H	1993	57	1329	BIOSCIENCE, BIOTECHN	HCAPLUS
Lion Corp	1985			JP 60075424 A	HCAPLUS
Nakatani, N	1992	56	759	BIOSCIENCE BIOTECHNO	HCAPLUS
Ramsewak, R	1999	51	729	PHYTOCHEMISTRY	HCAPLUS

Sumitomo Chem Co Ltd |1979 | | |JP 54117476 A |HCAPLUS
Sumitomo Chem Co Ltd |1981 | | |JP 56087504 A |HCAPLUS

L111 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:2835 HCAPLUS Full-text
DN 140:59332
TI Amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant
IN Gatfield, Ian-Lucas; Ley, Jakob Peter; Foerstner, Jan; Krammer, Gerhard; Machinek, Arnold
PA Symrise G.m.b.H. & Co. K.-G., Germany
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004000787	A2	20031231	WO 2003-EP6545	20030620 <--
	WO 2004000787	A3	20040805		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10227462	A1	20040108	DE 2002-10227462	20020620 <--
	DE 10227462	A9	20050728		
	AU 2003246570	A1	20040106	AU 2003-246570	20030620 <--
	EP 1517880	A2	20050330	EP 2003-760673	20030620 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2005234132	A1	20051020	US 2004-518074	20041216 <--
PRAI	DE 2002-10227462	A	20020620	<--	
	WO 2003-EP6545	W	20030620	<--	

AB A method for producing 2E,4Z-decadienoic acid isobutylamide (i.e., cis-pellitorin) is described as is its use as a pungent agent and a flavoring that generates heat, in foods, oral hygiene compns., or gourmet prepns.
IC ICM C07C0231-00
CC 23-18 (Aliphatic Compounds)
Section cross-reference(s): 17, 45, 62
ST decadienoic acid isobutylamide prepn flavoring agent odorant
IT Amides, preparation
RL: FFD (Food or feed use); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(E,4Z-decadienoic acid isobutylamide; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
IT Flavoring materials
Food
Odor and Odorous substances
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
IT Hygiene
(oral; amidation method for the production of cis-pellitorin and its use as

a flavoring agent and an odorant and in compns. for)

IT Amidation
(transamidation, enzymic; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT 73785-31-6 73785-32-7 175288-20-7 625092-39-9
639086-19-4 639086-20-7 639086-21-8
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(additive; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT 18836-52-7P
RL: FFD (Food or feed use); MOA (Modifier or additive use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amidation method for the production of cis-pellitorin and conversion to trans-pellitorin)

IT 639086-18-3P
RL: FFD (Food or feed use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT 60-29-7, Diethylether, uses
RL: NUU (Other use, unclassified); USES (Uses)
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT 1310-58-3, Potassium hydroxide, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

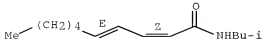
IT 9001-62-1, Chirazyme L-2
RL: CAT (Catalyst use); USES (Uses)
(in an amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT 3025-30-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(in an amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT 175288-20-7 625092-39-9
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(additive; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

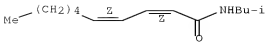
RN 175288-20-7 HCAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2Z,4E)- (CA INDEX NAME)

Double bond geometry as shown.



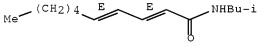
RN 625092-39-9 HCAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2Z,4Z)- (CA INDEX NAME)

Double bond geometry as shown.



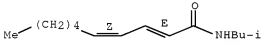
IT 18836-52-7P
RL: FFD (Food or feed use); MOA (Modifier or additive use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amidation method for the production of cis-pellitorin and conversion to trans-pellitorin)
RN 18836-52-7 HCAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



IT 639086-18-3P
RL: FFD (Food or feed use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
RN 639086-18-3 HCAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:944238 HCAPLUS Full-text
DN 140:180285
TI Pungent and tingling compounds in Asian cuisine
AU Galopin, Christophe C.; Furrer, Stefan M.; Goeke, Andreas
CS Givaudan Flavors R&D, Ingredient Systems, Cincinnati, OH, 45069, USA
SO ACS Symposium Series (2004), 867(Challenges in Taste Chemistry and Biology), 139-152
CODEN: ACSMC8; ISSN: 0097-6156
PB American Chemical Society
DT Journal; General Review
LA English
AB A review. Southern Asian cuisine is well known for its use of flavorful and pungent spices. The sanshool chems., such as α-hydroxy-sanshool from the

Japanese Sanchoo pepper and other Asian peppers, are particularly interesting because they not only give a hot sensation in the mouth cavity but also a tingling effect on the tongue. In order to understand the effect of the sanshool chems. the authors have synthesized a variety of derivs. Tasting of those derivs. provided information about Structure Activity Relationship (SAR) for the tingling effect exhibited by these chems. Based on this study the authors are able to propose a minimal structure required for the tingling effect. We also used this SAR knowledge to design stable compds. with potential tingling effect.

CC 17-0 (Food and Feed Chemistry)

ST review Asian food additive Sanshoo bungeanool deriv pungency tingling; Sanshoo bungeanool deriv structure pungency tingling review

IT Taste
(pungency; pungent and tingling compds. in Asian cuisine)

IT Structure-activity relationship
(taste; pungent and tingling Sanshoo and bungeanool compds. in Asian cuisine)

IT Food functional properties
(tingling; pungent and tingling Sanshoo and bungeanool compds. in Asian cuisine)

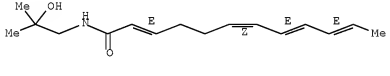
IT 83883-10-7D, α-Hydroxy-sanshool, derivs.
117568-40-8D, Bungeanool, derivs.
RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(pungent and tingling Sanshoo and bungeanool compds. in Asian cuisine)

IT 83883-10-7D, α-Hydroxy-sanshool, derivs.
117568-40-8D, Bungeanool, derivs.
RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(pungent and tingling Sanshoo and bungeanool compds. in Asian cuisine)

RN 83883-10-7 HCAPLUS

CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10E)- (CA INDEX NAME)

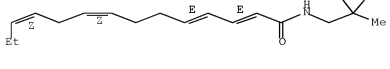
Double bond geometry as shown.



RN 117568-40-8 HCAPLUS

CN 2,4,8,11-Tetradecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,4E,8Z,11Z)- (CA INDEX NAME)

Double bond geometry as shown.



RETABLE

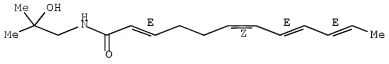
Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File

Bryant, B	1999	842	452	Brain Research	HCAPLUS
Chen, I	1999	52	357	Phytochemistry	HCAPLUS
Crombie, L	1952		4338	J Chem Soc	HCAPLUS
Crombie, L	1955		995	J Chem Soc	HCAPLUS
Crombie, L	1957		2760	J Chem Soc	HCAPLUS
Crombie, L	1985	26	2477	Tetrahedron Lett	HCAPLUS
Jacobson, M	1967	32	1646	J Org Chem	HCAPLUS
Mizutani, K	1988	36	2362	Chem Pharm Bull	HCAPLUS
Sonnet, P	1969	34	1147	J Org Chem	HCAPLUS
van der Linde, L	1985			EP 0173395 A1	HCAPLUS
Ward, J	1969	88	177	Recl Trav Chim Pays-	HCAPLUS
Xiong, Q	1997	46	1123	Phytochemistry	HCAPLUS

L111 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:842774 HCAPLUS Full-text
DN 138:284551
TI Pungency and tingling: sensations and mechanisms of trigeminal chemical sensitivity
AU Bryant, Bruce; Mezine, Igor
CS Monell Chemical Senses Center, Philadelphia, PA, 19104, USA
SO ACS Symposium Series (2002), 825(Chemistry of Taste), 202-212
CODEN: ACSMC8; ISSN: 0097-6156
PB American Chemical Society
DT Journal
LA English
AB Distinct from taste and olfaction, the trigeminal nerve is the third sensory pathway in the cranial sensory system that is sensitive to chemical stimuli. Trigeminal nerve endings in the nose and mouth contribute to flavor through the sensory modalities of touch, thermal sensation and pain. The best-characterized example of chemical induced trigeminal sensation is the pungency produced by hot peppers, the result of the activation of ion channels on pain-sensitive and thermally sensitive nerve fibers. Compds. commonly found in spices, food and beverages also elicit sensations other than pain. Menthol and other related compds. stimulate a subclass of thermal nerve endings to produce cooling. Yet other compds., stimuli as diverse as CO2 and fatty acids as well as some unsatd. alkylamides found in non-capsicum peppers and other plants, activate cooling-sensitive and tactile nerve endings. This particular combination of modalities gives rise to the novel tingling sensations associated with these stimuli.
CC 13-6 (Mammalian Biochemistry)
ST hydroxysanshool calcium pungency tingling trigeminal neurotransmission flavor
IT Taste
(pungency; pungency and tingling sensations and mechanisms of trigeminal chemical sensitivity)
IT 7440-70-2, Calcium, biological studies 83883-10-7, Hydroxy-α-sanshool
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effects of hydroxy-α-sanshool on intraneuronal calcium and taste pungency in mechanisms of trigeminal chemical sensitivity)
IT 504-97-2, α-Sanshool 7328-34-9 10076-00-3, β-Sanshool 18744-21-3 18836-52-7, Pellitorine 25394-57-4, Spilanthol 30361-33-2 65937-49-7 68125-01-9 73785-32-7 97465-69-5, Hydroxy-β-sanshool 252193-26-3, Hydroxy-ε-sanshool 499136-10-6 499136-12-8
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(pungency and tingling sensations and mechanisms of trigeminal chemical sensitivity)

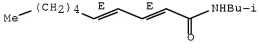
IT 83883-10-7, Hydroxy-α-sanshool
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effects of hydroxy-α-sanshool on intraneuronal calcium and taste pungency in mechanisms of trigeminal chemical sensitivity)
RN 83883-10-7 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



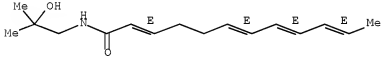
IT 18836-52-7, Pellitorine 97465-69-5, Hydroxy-β-sanshool 252193-26-3, Hydroxy-ε-sanshool
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(pungency and tingling sensations and mechanisms of trigeminal chemical sensitivity)
RN 18836-52-7 HCAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



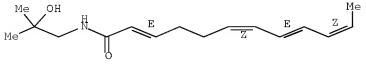
RN 97465-69-5 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6E,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



RN 252193-26-3 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10Z)- (CA INDEX NAME)

Double bond geometry as shown.



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Anon	1971		445	Fenaroli's Handbook	
Bryant, B	1999	842	452	Brain Res	HCAPLUS
Caterina, M	1997	389	816	Nature	HCAPLUS
Craig, A	1994	265	252	Science	MEDLINE
Duke, J	1985			CRC Handbook of Medi	
Garnsworthy, R	1988	59	1116	J Neurophysiol	MEDLINE
Green, B	1992	17	435	Chemical Senses	HCAPLUS
Greger, H	1984	50	366	Planta Medica	HCAPLUS
Hegnauer, R	1977			The Biology and Chem	
Holzer, P	1991	43	143	Pharmacol Rev	HCAPLUS
Jacobson, M	1948	70	4234	J Am Chem Soc	HCAPLUS
Kashiwada, Y	1997	44	1125	Phytochem	HCAPLUS
Liu, L	1996	76	1858	J Neurophysiol	HCAPLUS
Martenson, M	1997	761	71	Brain Res	HCAPLUS
Schmelz, M	1997	17	8003	J Neurosci	HCAPLUS
Walpole, C	1993	36	2381	J Med Chem	HCAPLUS
Yasuda, I	1981	29	1791	Chem Pharm Bull	HCAPLUS

L111 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:297270 HCAPLUS Full-text
DN 130:329049
TI Trigeminal sensory stimuli and animal repellents from plants
IN Bryant, Bruce P.; Mezine, Igor A.; Epple, Gisela M.
PA Monell Chemical Senses Center, USA
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9921425	A1	19990506	WO 1998-US22537	19981023 <--
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI US 1997-957112	A	19971024 <--		

AB Novel uses for compds. isolated from the fruit of Xanthoxylum and echinacea species, and similar compds. from other spice and flowering species, and the oil exts. from which they are isolated, are disclosed. The novel uses include flavor enhancers, additives for oral, hair, and skin care products, and animal repellents. An Et acetate extract of Xanthoxylum fruit was prepared, then evaporated to obtain an oil-like black-brown liquid of which hydroxy-α-sanshool (I) was separated I induced increase in calcium in neurons that were sensitive or insensitive to capsaicin. Twenty hour food-deprived rats consumed significantly less rat chow that had been treated with a crude vegetable oil suspension of Xanthoxylum extract than rats chow treated with a similar oil suspension of an extract made of equal weight of cinnamon.
IC ICM A01N0065-00
CC 62-5 (Essential Oils and Cosmetics)
Section cross-reference(s): 1, 5, 17
IT Bird (Aves)
(food repellents for; trigeminal sensory stimuli and animal repellents from plants)
IT 83883-10-7, Hydroxy-α-sanshool
RL: BAC (Biological activity or effector, except adverse); BOC (Biological

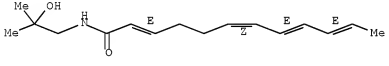
occurrence); BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(trigeminal sensory stimuli and animal repellents from plants)

IT 83883-10-7, Hydroxy-α-sanshool
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(trigeminal sensory stimuli and animal repellents from plants)

RN 83883-10-7 HCAPLUS

CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Wunderlich	1995			US 5401502 A	HCAPLUS

L111 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:155788 HCAPLUS Full-text

DN 126:261550

TI Amides of the fruit of Zanthoxylum spp

AU Kashiwada, Yoshiki; Ito, Chikashi; Katagiri, Hitoshi; Mase, Izumi; Komatsu, Katsuko; Namba, Tsuneo; Ikeshiro, Yasumasa

CS Niigata College Pharmacy, Niigata, 950-21, Japan

SO Phytochemistry (1997), 44(6), 1125-1127
CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier

DT Journal

LA English

AB Examination of the amide constituents in Budo-Zanthoxylum fruit, the most traded com. Zanthoxylum fruit in the Japanese market, has led to the isolation of a new amide, along with α-, β-, γ-, hydroxy-α-, hydroxy-β- and hydroxy-γ-sanshools. The structure of the new amide was assigned as (2E,4E,8E,10E,12E)-N-isobutyl- 2,4,8,10,12-tetradecapentaenamide by spectral examination

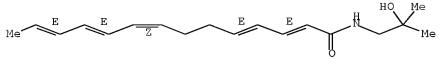
CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 17, 26

IT 504-97-2P, α-Sanshool 10076-00-3P, β-Sanshool 78886-65-4P, γ-Sanshool 78886-66-5P, Hydroxy-γ-sanshool 83883-10-7P, Hydroxy-α-sanshool 97465-69-5P
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(amides of Zanthoxylum fruit)

IT 78886-66-5P, Hydroxy-γ-sanshool 83883-10-7P, Hydroxy-α-sanshool 97465-69-5P
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence);

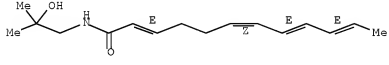
PREP (Preparation)
(amides of Zanthoxylum fruit)
RN 78886-66-5 HCAPLUS
CN 2,4,8,10,12-Tetradecapentaenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,4E,8Z,10E,12E)- (CA INDEX NAME)

Double bond geometry as shown.



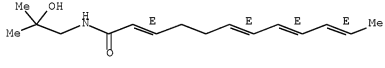
RN 83883-10-7 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



RN 97465-69-5 HCAPLUS
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6E,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1993:190280 HCAPLUS Full-text
DN 118:190280
TI Amides from supercritical fluid extracts of muntok pepper
AU Kollmannsberger, H.; Nitz, S.
CS Inst. Lebensmitteltechnol. Anal. Chem., Tech. Univ. Muenchen, Freising, W-8050, Germany
SO Chemie, Mikrobiologie, Technologie der Lebensmittel (1992), 14(3/4), 87-94
CODEN: CMTLBX; ISSN: 0366-7154
DT Journal
LA German
AB In supercrit. fluid exts. of Muntok pepper, 21 piperidides, 7 pyrrolidides, and 7 isobutylamides of various saturated and unsatd. fatty acids and 3,4-methylenedioxybenzyl-substituted carbonic acids were separated by gas chromatog. (GC) and identified by mass spectrometry (GC-MS) and in some cases

by IR spectroscopy (GC-FTIR). Their sensorial contributions and physiol. effects are briefly discussed.

CC 17-6 (Food and Feed Chemistry)

IT Amides, biological studies
RL: BIOL (Biological study)
(of Muntok pepper flavor)

IT Flavor
(of Muntok pepper, piperidides and pyrrolidides and isobutylamides of)

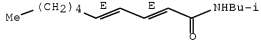
IT 94-62-2, Piperin 94-62-2 583-34-6, Piperettin 618-42-8, Acetylpiperidide 2591-86-8, Formylpiperidide 4629-02-1, Hexadecanoylpiperidide 5299-66-1, Dodecanoylpiperidide 18836-52-7 23512-46-1 24738-51-0 25924-78-1, Piperylin 27845-72-3 30505-89-6 30505-92-1 42997-42-2 54794-69-3 54794-70-6 56630-42-3, 9-Octadecenoylpiperidide 65937-45-3 78910-33-5 82857-82-7 91487-76-2 117137-69-6 145398-89-6 145398-91-0 145398-95-4 145427-76-5 147030-02-2 147030-03-3 147030-04-4 147030-05-5 147030-06-6 147030-09-9 147030-13-5
RL: BIOL (Biological study)
(of Muntok pepper aroma)

IT 18836-52-7
RL: BIOL (Biological study)
(of Muntok pepper aroma)

RN 18836-52-7 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



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(FILE 'HOME' ENTERED AT 13:33:28 ON 26 MAR 2008)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:33:56 ON 26 MAR 2008
L1 1 S US20050233042/PN OR (US2005-522113# OR WO2003-CH500)/AP,PRN
E GALOPIN/AU
L2 30 S E4,E5,E8-E10
E GOEKE/AU
L3 28 S E3,E6
E GEOKE/AU
E GOKE/AU
E FURRER/AU
E FURRER S/AU
L4 30 S E3-E6
E FUERRER/AU
E GIVAUDAN/CO
L5 1348 S E3-E96
E E82+ALL
L6 1845 S E2+RT OR E2-E50/PA,CS
SEL RN L1

FILE 'REGISTRY' ENTERED AT 13:36:38 ON 26 MAR 2008
L7 9 S E1-E9

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L8            3 S L7 AND N/ELS AND C>=10 NOT P/ELS

     FILE 'HCAPLUS' ENTERED AT 13:39:06 ON 26 MAR 2008
L9           68 S L2-L4 NOT L1

     FILE 'REGISTRY' ENTERED AT 13:39:19 ON 26 MAR 2008

     FILE 'HCAPLUS' ENTERED AT 13:39:19 ON 26 MAR 2008
L10             TRA L9 1- RN :      837 TERMS

     FILE 'REGISTRY' ENTERED AT 13:39:21 ON 26 MAR 2008
L11          837 SEA L10
L12           16 S L11 AND 1/O AND 1/N AND 4/ELC.SUB
L13           24 S L11 AND 2/O AND 1/N AND 4/ELC.SUB
L14            2 S L13 AND (C18H29NO2 OR C16H25NO2) NOT C6/ES
L15            5 S L8,L14
                 E C1317 N O/MF
                 E C13H17NO/MF
L16         2287 S E3 AND 46.150.18/RID
L17           51 S L16 AND 2 PROPENAMIDE
L18           19 S L17 AND 3 PHENYL
L19            6 S L18 AND METHYLPROPYL
L20            3 S L19 AND 2 METHYLPROPYL
                 E C11H19NO/MF
L21         1899 S E3
L22         1681 S L21 AND NR>=1
L23          218 S L21 NOT L22
L24            4 S L23 AND METHYLPROPYL
L25            1 S L24 AND HEPTADIENAMIDE
                 E C10H17NO2/MF
L26         2613 S E3
L27         2201 S L26 AND NR>=1
L28          412 S L26 NOT L27
L29          193 S L28 NOT ESTER
L30          177 S L29 NOT CYAN?
L31          148 S L30 NOT NITRILE
L32          132 S L31 NOT NITRO
L33          115 S L32 NOT METHOXY
                 E C14H25NO/MF
L34          926 S E3
L35          819 S L34 AND NR>=1
L36          107 S L34 NOT L35
L37           97 S L36 NOT (NITRO OR NITRILE OR CYAN? OR ESTER)
L38           13 S L37 AND METHYLPROPYL
L39            6 S L38 AND 2 4
                 E C14H25NO2/MF
L40         1136 S E3
L41          952 S L40 AND NR>=1
L42          184 S L40 NOT L41
L43           62 S L42 NOT (NITRO OR NITRILE OR CYAN? OR ESTER)
L44           60 S L43 NOT ACETATE
L45           52 S L44 NOT OXIME
                 E C10H17NO2/MF
L46           15 S L15,L20,L25,L39
                 SEL RN 11 14
L47           13 S L46 NOT E1-E2
                 E C14H23NO2/MF
L48         1926 S E3
L49         1833 S L48 AND NR>=1
L50           93 S L48 NOT L49
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L51          92 S L50 NOT HYDROXYETHYL
L52          28 S L51 NOT  (NITRO OR NITRILE OR CYAN? OR ESTER)
L53          26 S L52 NOT ?NITRIL?/CNS
L54           1 S L53 AND DECATRIENAMIDE AND HYDROXY AND METHYLPROPYL
L55           1 S L50 AND METHYLPROPYL AND HYDROXY
L56          13 S L47,L54,L55
L57           2 S L46 NOT L56
L58             STR
L59          50 S L58
L60       42913 S L58 FUL
L61             STR L58
L62          50 S L61 CSS SAM SUB=L60
L63        1639 S L61 CSS FUL SUB=L60
                SAV TEMP L63 DEES522A/A
L64             STR L58
L65           4 S L64 CSS SAM SUB=L63
L66          94 S L64 CSS FUL SUB=L63
                SAV TEMP L66 DEES522B/A
L67           3 S L66 AND NC>=2
L68           2 S L67 NOT C42H70O35
L69           1 S L67 NOT L68
L70          93 S L66 NOT L69
L71         103 S L56,L70
L72             STR L64
L73           2 S L72 SAM SUB=L63
L74          22 S L72 FUL SUB=L63
                SAV TEMP L74 DEES522C/A
L75           4 S L74 NOT L71
L76         107 S L71,L74
                SAV TEMP L76 DEES522D/A

     FILE 'HCAPLUS' ENTERED AT 14:23:18 ON 26 MAR 2008
L77         434 S L76
L78           2 S L77 AND L1-L6
L79           2 S L77 AND GIVAUDAN?/CO,PA,CS
L80           2 S L78,L79
                SEL RN

     FILE 'REGISTRY' ENTERED AT 14:24:01 ON 26 MAR 2008
L81          11 S E1-E11
L82           2 S L81 AND N/ELS NOT L76
L83           1 S L82 AND C13H17NO

     FILE 'HCAPLUS' ENTERED AT 14:25:09 ON 26 MAR 2008
L84          19 S L83
L85           1 S L1-L6 AND L84
L86           2 S L80,L85
L87         446 S L77,L84
L88         309 S L87 AND PY<=2003 NOT P/DT
L89          42 S L87 AND (PD<=20030723 OR PRD<=20030723 OR AD<=20030723) AND P
L90         351 S L88,L89
L91           7 S L90 AND (L77 OR L84)(L)FFD/RL
                E FLAVOR/CT
L92       31940 S E3-E8 OR E22-E35
                E E3+ALL
L93       29719 S E2,E3,E5-E9
                E E11+ALL
L94       21825 S E2,E9,E10
                E E12+ALL
L95        6113 S E4,E5
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L96           7 S L90 AND L92-L95
L97           9 S L86,L91,L96
                E TASTE/CT
L98        8336 S E3-E15
                E E3+ALL
L99        7821 S E4
                E E7+ALL
L100       1629 S E15+OLD
L101          3 S L90 AND L98-L100
L102         11 S L97,L101
L103         11 S L102 AND (TASTE OR FLAVOR? OR FLAVOUR?)
L104         11 S L102 AND (FEED? OR FOOD?)/CW,CT,SC,SX,BI
L105         11 S L102-L104
L106         18 S L90 AND (FEED? OR FOOD?)/CW,CT,SC,SX,BI
L107         12 S L90 AND (TASTE OR FLAVOR? OR FLAVOUR?)
L108          9 S L106,L107 NOT L105
                SEL AN 2 4
L109          2 S L108 AND E1-E4
L110         13 S L105,L109
L111         13 S L110 AND L1-L6,L77-L80,L84-L110

     FILE 'REGISTRY' ENTERED AT 14:36:46 ON 26 MAR 2008

     FILE 'HCAPLUS' ENTERED AT 14:37:37 ON 26 MAR 2008

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